

ZOOLOGY.—*Description of a new species of Cossura (Annelida: Polychaeta) from the Mississippi Delta.*<sup>1</sup> DONALD J. REISH, University of Southern California. (Communicated by Fenner A. Chace, Jr.)

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While identifying polychaetous annelids from the Mississippi Delta, I discovered a new species of the cirratulid genus *Cossura* Webster and Benedict. The material was

The genus *Cossura*, known for only three previous species, has attracted considerable interest in recent years. This is largely the result of increased emphasis upon quantita-

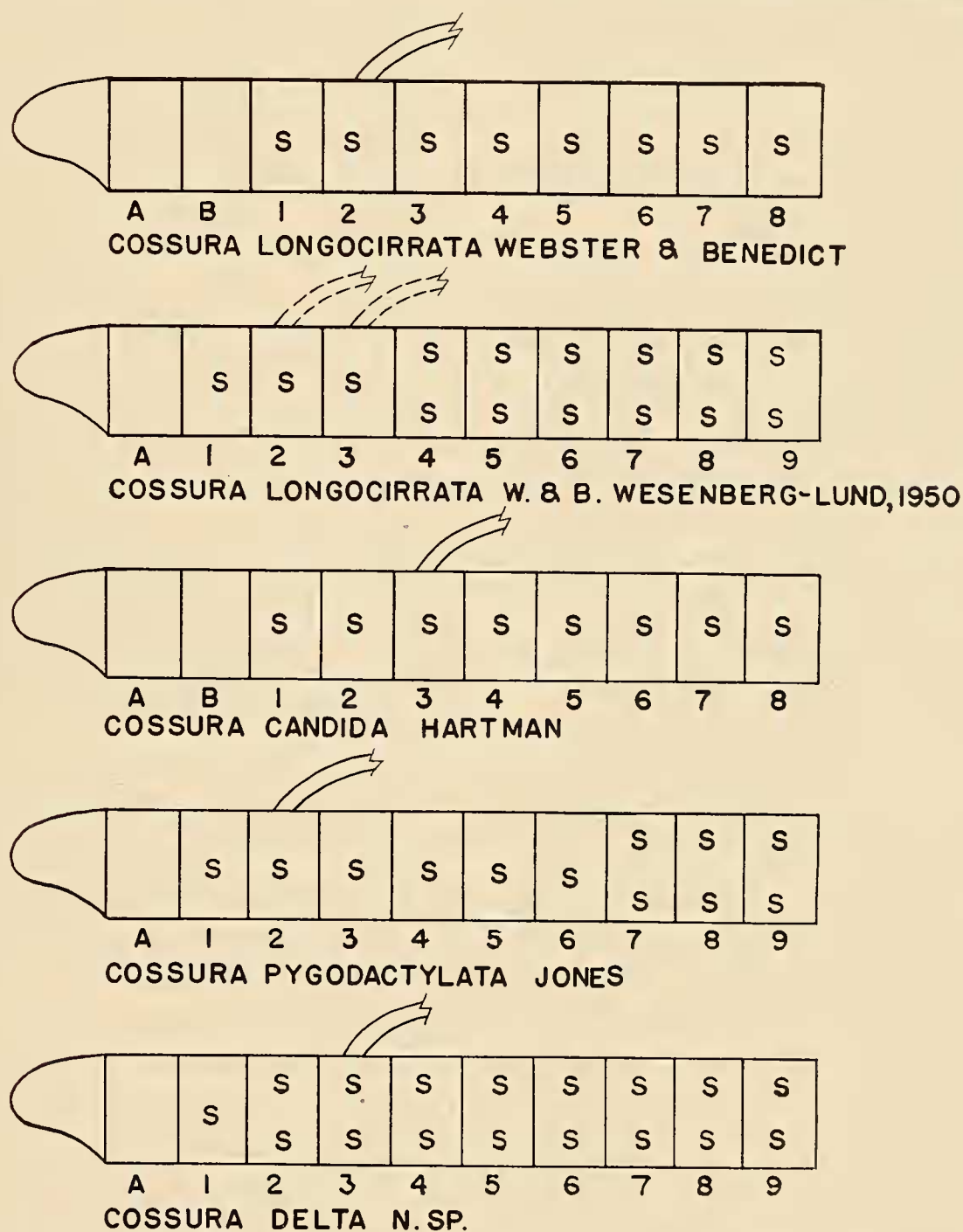


FIG. 1.—Diagrammatic representation of the anterior regions of the known species of *Cossura*. The number of asetigerous segments posterior to the prostomium is indicated by the letters A and B. The setigerous segment number is indicated by the numerals. The single letter S within a segment indicates that the setae of the notopodium and neuropodium are continuous. Two letter S's indicate separation of the setae of these two lobes.

collected by Robert H. Parker, with a size 1 Hayward orange-peel bucket, of the Scripps Institution of Oceanography. The results of the quantitative survey, including a list of the polychaetes collected, have been published (Parker, 1956).

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tive studies coupled with refinement of handling techniques once the samples have been taken. *Cossura longocirrata* was described by Webster and Benedict (1887) for specimens collected at Eastport, Maine. This species was subsequently reported from Denmark (Eliason, 1920; Thulin, 1921), North Atlantic (Wesenberg-Lund, 1950),

and British Columbia (Berkeley and Berkeley, 1956). *Cossura candida* was recently described by Hartman (1955b) from southern California. Included under this species are the reports from San Pedro Basin (Hartman, 1955a, as *Cossura* sp.), Los Angeles—Long Beach Harbors (Anon., 1952, as *Cossura longicirrata* [sic]; Reish, 1955, as *Cossura* sp.) and Alamitos Bay (Reish and Winter, 1954, as *Cossura longicirrata* [sic]). More recently Jones (1956) described *Cossura pygodactylata* from San Francisco Bay.

Family CIRRATULIDAE

Genus *Cossura* Webster and Benedict, 1887

*Cossura delta*, n. sp.

Many individuals, all incomplete posteriorly, come from the Pass a Loutre region of the Mississippi River Delta, Gulf of Mexico (Parker, 1956). The holotype measures 66 mm in length and 0.5 mm in width. A total of 25 setigerous segments are present. The ten paratypes have from 22 to 34 setigerous segments and measure from 5 to 10 mm in length.

*Anterior end.*—The prostomium is conical in shape, has two nuchal organs, but lacks eyes. The proboscis is everted in some of the specimens; the base bears from 15 to 20 digitate lobes. The peristomium lacks setae. The first setigerous segment follows the peristomium. *Cossura delta*, as the other species in the genus, lacks parapodia; the setae originate directly from the lateral body wall. The first setigerous segment is biramous with the setae forming a continuous lateral series (Fig. 1). Beginning with the second setigerous segment, the setae of the notopodial region and the neuropodial region are distinctly separated (Fig. 1). The single long, cylindrical tentacle originates from the middorsum of the third setigerous segment. It measures 8 mm in the holotype, but it was undoubtedly broken during the process of collecting.

*Setae.*—There are two kinds of setae in *Cossura delta*. One type is a simple capillary which is armed with spines along its outer edge (Fig. 2, A). They are found in both the notopodium and the neuropodium. They number 7 to 9 per lobe in the notopodium (Fig. 2, A) and are directed posteriorly. The capillaries are more slender in the neuropodium (Fig. 2, B). These setae, which number 4 to 8 per lobe, are directed posteriorly.

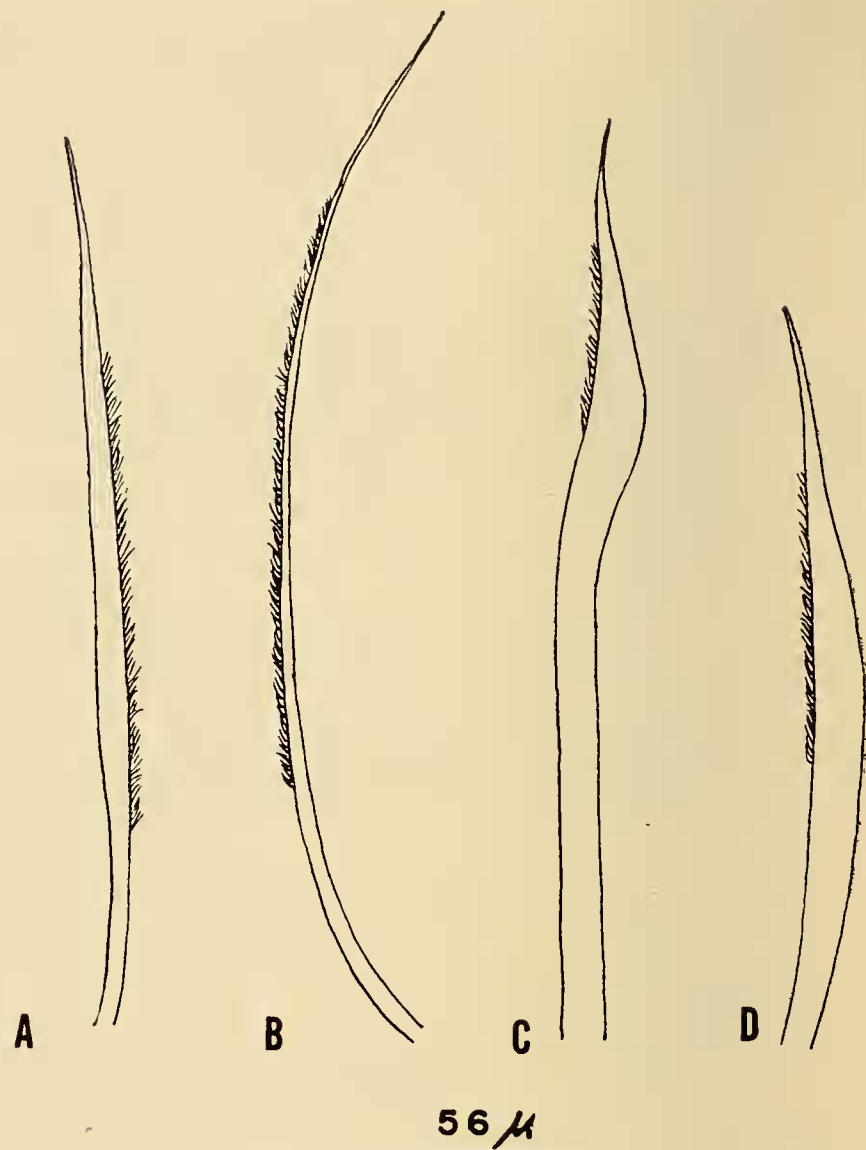


FIG. 2.—A, Capillary seta from the notopodium of segment 10; B, capillary seta from the neuropodium of segment 10; C, limbate seta from the neuropodium of segment 10; D, limbate seta from the neuropodium of segment 15.

The second kind of setae is simple curved limbate ones (Fig. 2, C) which are limited to the anterior neuropodial segments. They begin at the first setigerous segment, reach their maximum development at segments 7 to 12, and gradually diminish in size from segments 18 to 25 (Fig. 2, C and D). Fine spines are present along the outer margin of these setae. Generally four limbate setae are present in each lobe. These setae are directed slightly forward.

*Posterior end.*—It is unknown in *Cossura delta* since all specimens were incomplete posteriorly. The posterior end of the other three species are similar. The setae are as in the anterior segments, and the pygidium bears three long anal cirri. In addition, *C. pygodactylata* is characterized by possessing 6 to 10 digitate lobes on either side of the anus.

*Discussion.*—*Cossura delta* differs from the other known species of the genus in possessing curved limbate setae in the anterior neuropodia (Fig. 2, C and D), and the separation of the notopodial and neuropodial setae at the second



setigerous segment (Fig. 1). This species comes nearest to *C. longocirrata* as reported by Wesenberg-Lund (1950) and Berkeley and Berkeley (1956). These two species are characterized by having one setigerous segment posterior to the prostomium and the tentacle originating from the dorsum of the third setigerous segment (sometimes second in *C. longocirrata* as stated by Wesenberg-Lund, 1950) (Fig. 1). The anterior ends of the four species of the genus are diagrammatically represented in Fig. 1. Since some differences exist between the reports of *C. longocirrata* by Webster and Benedict (1887) and that by Wesenberg-Lund (1950) and Berkeley and Berkeley (1956), diagrams are included for each.

*Type material*.—The holotype (U.S.N.M. no. 28706) and 5 paratypes (U.S.N.M. no. 28707) have been deposited in the U. S. National Museum. Five paratypes have been placed in the polychaete collections of the Allan Hancock Foundation, University of Southern California.

*Type locality*.—Station number 328 (Parker, 1956), off Pass A'Loutre region of the Mississippi River Delta. It was collected in shallow depths in clayey sediments.

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*I envy no man that knows more than myself but pity them that know less.*—SIR THOMAS BROWNE.